USDA State Classification for TB

The United States Department of Agriculture (USDA) evaluates TB control efforts in each state and assigns a status classification. The basis for state status is the prevalence of the disease in cattle and bison, the effectiveness of the eradication program, and the compliance with the USDA TB standards. There are five classifications including: Accredited-free, Modified Accredited Advanced, Modified Accredited, Accreditation Preparatory, and Non-Accredited. The state status determines the interstate and intrastate TB testing requirements for cattle. The classification system ensures that the state meets the requirements necessary for obtaining national eradication of bovine TB.

On Farm Prevention for TB

Cattle producers, in consultation with the herd veterinarian, should develop and implement a herd health program, which includes prevention of bovine TB. Importation of cattle, particularly breeding stock, stocker cattle, and roping/rodeo stock, can pose a significant disease threat to your herd. All imported cattle should be tested for TB prior to entering the herd. Record individual animal identification and maintain accurate records to enhance disease tracing.

To decrease the risk of TB:

1. Maintain a closed herd, if possible.
2. Isolate and test purchased additions.
3. Isolate and test cattle re-entering the herd (i.e. contract-raised heifers).
4. Enhance and enforce premises biosecurity to prevent contact with cattle of unknown TB status.
5. Raise replacement heifers in areas kept entirely separate from feeder cattle and cattle of Mexican origin.
6. Prevent commingling of replacement heifers with feeder cattle, including in the sick pen.
7. Have diagnostic workups of suspicious sick or dead animals performed using services of your veterinarian and the California Animal Health and Food Safety Services Laboratory System.
8. Establish a TB testing policy for employees.

Your veterinarian is an excellent source of information on bovine TB. For more information contact:

California Department of Food and Agriculture

Animal Health Branch
1220 N Street, Room A-107
Sacramento, CA 95814

Headquarters	(916) 654-1447
Redding District	(530) 225-2140
Modesto District	(209) 491-9350
Tulare District	(559) 685-3500
Ontario District	(909) 947-4462

http://www.cdfa.ca.gov/ahfss/Animal_Health/

Milk and Dairy Foods Safety Branch
1220 N Street, Room A-170
Sacramento, CA 95814

Headquarters	(916) 654-0773
Sacramento Region	(209) 466-7186
Fresno Region	(559) 445-5506
Oakland Region	(510) 622-4810
Ontario Region	(909) 923-9929

United States Department of Agriculture

Veterinary Services
10365 Old Placerville Road, Suite 210
Sacramento, CA 95827
(916) 854-3950 or (877) 741-3690

For Public Health Questions Contact:

California Department of Public Health, Veterinary Public Health Unit

(916) 552–9740

Additional formats available upon request

Bovine TB in CA brochure2008.Indd

CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

Animal Health and Food Safety Services
Animal Health Branch

Bovine Tuberculosis

Information for Livestock Producers

2008

General

Tuberculosis (TB) is an infectious bacterial disease that usually affects the respiratory system of mammals. Bovine TB is caused by *Mycobacterium bovis*. This bacterium can infect all warm-blood animals including humans. Human TB is most often caused by *Mycobacterium Tuberculosis.*

Transmission

M. bovis bacteria are excreted in the exhaled air, sputum, feces, urine and milk of infected animals. The most common method of disease transmission between cattle is inhalation of the bacteria. Over 95% of bovine TB cases are the result of direct contact with infected cattle. Transmission can also occur through ingestion of contaminated feed and water. The organism can remain viable in the environment for 6-8 weeks depending on temperature and humidity. Only 1–5% of infected cattle shed the organism in their milk. Transmission from infected dam to calf can occur through the consumption of the dam's milk.

Farm employees in contact with infected cattle may serve as carriers of the bacterial agent on their clothing or shoes. In rare cases, humans infected with *M. bovis* TB can transmit the disease to cattle through sputum and urine.

Effects of the Disease

Once mycobacteria are inhaled or ingested, the immune system releases inflammatory cells to wall off the infection. Specific lesions of TB are tubercles, which are masses of inflammatory cells that, when chronic, form a granuloma. In approximately 90% of TB-infected cattle, the lung and lymph nodes of the respiratory system are the primary sites for TB lesions. Lesions can also be found in the thoracic cavity, head, and mesenteric lymph nodes.

Signs of the Disease

TB is a slowly progressive disease often taking months or years to develop. Cattle with bovine TB infection are without clinical signs 90% of the time, but may eventually exhibit weight loss and a gradual decline in general health. If present, clinical signs may include cough, production loss, rough hair coat, chronic weight loss, variable appetite and fluctuating fevers.

Public Health Risk

Regulations for milk pasteurization temperatures are designed to protect consumers from contracting bovine TB. *M. bovis* can spread to humans through the consumption of raw milk or unpasteurized or improperly pasteurized dairy products from infected animals. The incidence of *M. bovis* strain of TB in humans is increasing in California. Unpasteurized cheese, such as the popular *queso fresco* from Mexico, has been found to contain *M. bovis* and should be considered unsafe. In California, all raw milk dairies are tested annually to ensure safe products for the consumers. *M. bovis* infection in humans is difficult to treat. This strain is resistant to some drugs in the standard six-month course of TB treatment, so treatment is typically extended three additional months.

Disease Significance

Bovine TB is of great concern to the California cattle industry. The most significant concerns are the potential human health risk and the potential establishment of infection in a wide range of hosts including free-roaming wildlife. The presence of bovine TB in the state may lead to loss of consumer confidence in milk and beef products, additional testing requirements prior to cattle movement out of the state and the imposition of trade restrictions on the state's dairy products.

Historic US Eradication Efforts

Bovine TB eradication efforts began in 1917 due to the significant animal and human health concerns associated with the disease. Initially, the federal TB program consisted of area testing, in which approximately 15% of a state's cattle population was tested each year. All herds in the state would be tested every six years. Area testing was the primary tool of the eradication effort until the national prevalence level of TB was greatly reduced.

California abandoned area TB testing in 1994. The prevalence of TB in the state and the US had reached such low levels that this test method was no longer efficient for the detection of the disease.

Current US Eradication Efforts

The current program relies on two strategies for the detection of bovine TB.

- Live Animal Surveillance: Field veterinarians conduct the caudal fold skin test on cattle for interstate movement, herd accreditation and disease investigations. Animals with a response to the initial caudal fold test are subject to additional confirmatory testing by regulatory veterinarians.

- Routine Slaughter Surveillance: Cattle slaughtered at state and federally inspected slaughter plants are inspected for granuloma lesions. Suspect lesions undergo laboratory diagnostics to confirm presence of *M. bovis.* Any carcass with TB confirmed lesions is not used for human consumption. Additionally, the herd of origin for the condemned carcass is TB tested.

Detection of TB Affected Animals

When an animal in a herd is confirmed as infected by laboratory testing, the herd is classified as an affected herd. This herd is placed under quarantine and TB tested to determine the presence or absence of other infected animals. Additionally, epidemiological tracing of cattle movement into and from the affected herd is performed and additional contact herd testing is conducted.

To comply with disease control, owners of affected herds may either depopulate the affected herd or engage in a test and removal plan. In a test and removal plan cattle are repeatedly tested. Infected and suspect cattle at each test are removed to slaughter until the remaining herd tests negative for the disease. This process will take 4-7 years to attain a required series of negative herd tests.